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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/667,003

09/21/2000

Woong Sik Choi

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08/19/2004

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EXAMINER

NGUYEN, JENNIFER T

ART UNIT

PAPER NUMBER

2674

11

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/667,003

Applicant(s)

CHOI ET AL.

Examiner

Jennifer T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This Office action is responsive to amendment filed on 06/04/2004.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Troxell (U.S. Patent No. 5,177,406).

Regarding claims 1, 20, 25, and 27, referring to Figs. 1-5, Troxell teaches an electro-Luminescence display device, comprising: a first pixel cell (16a) displaying a first color; a second pixel cell (16b) displaying a second color; a first driving circuit (34a) receiving a first driving voltage and applying a first driving current (i.e.,  $I_p$  with first level) to the first pixel cell based on the first driving voltage (i.e.,  $V$  from line 26) (Figs. 4 and 5); and a second driving circuit (34b) receiving a second driving voltage (i.e.,  $V$  from line 26) and applying a second driving current (i.e.,  $I_p$  with second level) to the second pixel cell based on the second driving voltage, wherein: the first and second driving voltages are equal, and the first and second driving currents are determined based on an electrical characteristic of an electro-luminescence diode provided in each of the first and second pixels, respectively, whereby the first and second pixel cells are independently driven (see abstract, from col. 5, line 29 to col. 8, line 16 and from col. 10, line 24 to col. 12, line 45).

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Regarding claims 10, 17-19, 21-24, and 28, Troxell further teaches a third pixel cell (16c) displaying a third color; and a third driving circuit (34c) receiving a third driving voltage (i.e.,  $V$  from line 26) and applying a third driving current (i.e.,  $I_p$  with third level) to the third pixel cell based on the third driving voltage, wherein the first, second and third driving voltages are equal, and the first, second and third driving currents are different, whereby the first, second and third pixel cells are independently driven (from col. 5, line 29 to col. 8, line 16 and from col. 10, line 24 to col. 12, line 45).

Regarding claims 16, 2-9, 11-15, and 26, Troxell teaches an electro-luminescence display device, comprising: a first driving circuit (34a) including a first transistor having a first channel width (i.e.,  $W_t$ ) and a first channel length (i.e.,  $L_t$ ), the first channel width to the first channel length forming a first ratio (i.e.,  $W_t/L_t$ ); and a second driving circuit (34b) including a second transistor having a second channel width (i.e.,  $W_t$ ) and a second channel length (i.e.,  $L_t$ ), the second channel width to the second channel length forming a second ratio (i.e.,  $W_t/L_t$ ), the first ratio being different from the second ratio and the first and second ratios are determined based on an electrical characteristic of an electro-luminescence diode provided in each of the first and the second pixels, respectively (i.e., pixel driving having a lower luminous efficiency, the corresponding driver transistor will have a wider channel, the pixel driving having a higher luminous efficiency, the corresponding driver transistor will have a reduced width) (from col. 5, line 29 to col. 8, line 16 and from col. 10, line 24 to col. 12, line 45).

### ***Response to Arguments***

4. Applicants' arguments filed 06/04/2004, have been fully considered but they are not persuasive because as follows:

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In response to applicants' argument filed "Troxell fails to teach or suggest determining the values of currents based on an electrical characteristic of an electro-luminescence diode provided in each of the pixel (as in claim 1 and 20), or determining ratios of channel widths to channel lengths of transistors based on an electrical characteristic of an electro-luminescence diode provided in each of the pixel (as in claim 16, 25, and 26)". Examiner disagreed because Troxell teaches values of currents based on an electrical characteristic of an electro-luminescence diode provided in each of the pixel or the ratios of channel widths to channel lengths of transistors based on an electrical characteristic of an electro-luminescence diode provided in each of the pixel wherein the pixel driving having a lower luminous efficiency, the corresponding driver transistor will have a wider channel, the pixel driving having a higher luminous efficiency, the corresponding driver transistor will have a reduced width (from col. 10, line 24 to col. 13, line 15). Therefore, it is a matter of design choice to select the  $W_t/L_t$  ratios of the respective driving device to achieve the desired current through the associated R, G, and B pixels; and thereby achieve the desired brightness levels.

Therefore, it is believed that all the limitations of claims 1-28 are still met by Troxell and the rejection is maintained.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**. The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reach at **703-305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks


Washington, DC. 20231

**Or faxed to: 703-872-9306 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

JNguyen  
08/12/2004

  
**REGINA LIANG**  
**PRIMARY EXAMINER**